FEDERAL SUPPLY CLASS
3110

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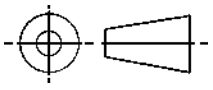

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CUSTODIAN: SAE ACBG

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INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARD

BEARING, ROLLER, NEEDLE-SINGLE ROW, THIN SHELL, TYPE II, ANTIFRICTION

AS24462
SHEET 1 OF 4

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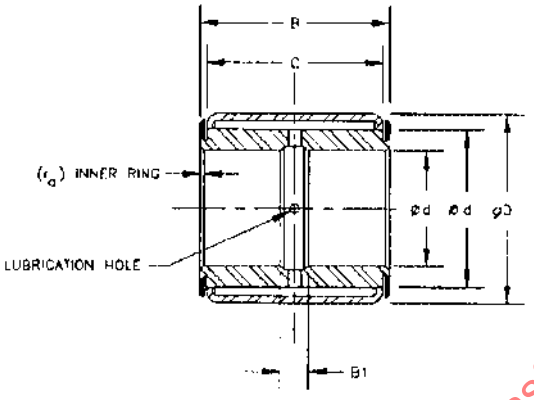

TABLE I

Dimensions in inches

Dash	ød Bore	øD Outer Ring Outside Dia 2/	B Over-all Width	c Outer Ring Width	ød1 Washer Outside Dia	B1 Lubrication Groove Width	r_a 1/ Fillet Max	Radial Internal Clearance Max	Limit Load Rating Lbs 3/	Mass (approx) lb
-3	1900	6250	625	500	.562	None	022	0015	679	040
-4	2500	.6250	.562	.500	.562	None	.022	0015	878	.025
-5	3125	6875	625	500	625	None	022	0015	988	050
-6	3750	7500	812	750	688	188	022	0015	1920	060
-7	4375	8125	875	750	750	188	032	0015	2110	090
-8	5000	1.0000	875	.750	.938	.188	032	.0015	2350	.120
-10	6250	1 1250	875	.750	1 062	250	.032	.0015	2690	.150
-12	7500	1 2500	1 125	1 000	1 188	250	032	0015	4480	210
-14	8750	1 3750	1 125	1 000	1 312	375	032	0015	5000	240
-16	1 0000	1 5000	1 125	1 000	1 438	375	032	0015	5510	270
-20	1 2500	1.8750	1 375	1 250	1.812	375	032	0017	8180	300

TABLE II

Dimensions in millimeters

Dash NO	ø d Bore	øD Outer Ring Outside Dia	B Over-all Width	c Outer Ring Width	ød1 Washer Outside Dia.	B1 Lubrication Groove Width	r_a 1/ Fillet Max.	Radial Internal Clearance Max	Limit Load Rating N	Mass (approx) kg
-3	4.826	15.875	15.88	12.70	14.27	None	6	038	3020	018
-4	6.350	15.875	14.27	12.70	14.27	None	.6	038	3910	011
-5	7.938	17.462	15.88	12.70	15.88	None	6	038	4390	023
-6	9.525	19.050	20.62	19.05	17.48	4.78	6	.038	8540	.027
-7	11.112	20.638	22.22	19.05	19.05	4.78	6	038	9390	041
-8	12.700	25.400	22.22	19.05	23.82	4.78	.8	.038	10500	.055
-10	15.875	28.575	22.22	19.05	26.97	6.36	8	.038	12000	.068
-12	19.050	31.750	28.58	25.40	30.18	6.35	8	038	19900	.095
-14	22.223	34.925	28.58	25.40	33.32	9.52	8	038	22200	109
-16	25.400	38.100	28.58	25.40	36.52	9.52	8	.038	24500	.123
-20	31.750	47.625	34.92	31.75	46.02	9.52	8	043	36400	.136

1/ THE CHAMFER ON BEARINGS MUST CLEAR THE MAXIMUM FILLET RADIUS GIVEN IN THE TABLE THIS SPECIFICATION DOES NOT CONTROL BEARING CHAMFER CONTOURS

2/ DO NOT MEASURE O D WHEN BEARING IS IN FREE STATE DIMENSIONS ABOVE ARE FOR BASIC OUTSIDE DIAMETER

TABLE III - TOLERANCE LIMITS

DIMENSIONS IN INCHES

ød BASIC BORE MEAN		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN $ød_{mp}$		ALLOWABLE DEVIATION FROM OVER-ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, $ød_1$		ALLOWABLE DEVIATION FROM LUBRICATION GROOVE WIDTH, B_1		øD BASIC OUTER RING OUTSIDE DIA		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN $øD_{mp}$		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
.1250	1.2500	+ 0000	-.005 -.005	+.0000	- 005	+.010	-.010	+.0000	-.062	.5625	1 8750	+.0005	-.0005	+ 0000	-.010

TABLE IV

DIMENSIONS IN MILLIMETERS

ø d BASIC BORE MEAN		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN $ød_{mp}$		ALLOWABLE DEVIATION FROM OVER-ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, $ød_1$		ALLOWABLE DEVIATION FROM LUBRICATION GROOVE WIDTH, B_1		ø D BASIC OUTER RING OUTSIDE DIA		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN $øD_{mp}$		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
3 175	31 750	+ 0000	- 013	+ 0000	- 13	+ 25	- 25	+ 0000	- 1 50	14 288	47 625	+ 013	- 013	+ 0000	- 25

TABLE V - OIL HOLE DATA

BORE-DASH NO		NUMBER OF HOLES
OVER	INCL	INNER RING
2	5	None
5	10	2
10	20	4

REQUIREMENTS:

1. MATERIAL: STEEL, MIL-S-8690, FED. STD. NO. 66, AISI/SAE STEEL NO. 50100, 51100 AND 52100.
2. FINISH:
   a. PLATING: ZINC-NICKEL PLATE, AMS 2417, TYPE 2, OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2, TO A MINIMUM THICKNESS OF .0003 TO .0006 INCHES.
   b. MACHINE FINISH: ANSI/ASME B46.1, SEE PROCUREMENT SPECIFICATION.
3. LUBRICANT: MIL-G-81322 OR MIL-G-23827. ALL BEARINGS SHALL BE PREPACKED WITH GREASE CONFORMING TO MIL-G-81322 UNLESS OTHERWISE SPECIFIED. ALL BEARINGS SHALL BE FILLED 80% MINIMUM WITH GREASE. IF MIL-G-23827 IS REQUIRED, ADD THE LETTER "L" AFTER THE MS21439 DASH NUMBER. IF A RELUBRICATION GROOVE IS DESIRED, ADD THE CODE "G" AFTER THE MS21439 DASH NUMBER AND BEFORE THE LUBRICANT DESIGNATOR IF APPLICABLE. MIL-G-23827 SHALL NOT BE USED FOR OPERATIONS WHERE TEMPERATURES EXCEED 250°F.
4. MARKING: THE MARKING SHALL CONSIST OF THE MS PART NUMBER AND THE MANUFACTURER'S IDENTIFICATION IN ACCORDANCE WITH MIL-STD-130.
5. PART NUMBER: THE MS PART NUMBER SHALL CONSIST OF THE MS NUMBER PLUS THE DASH NUMBER.